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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,631	03/29/2007	Shigemitsu Kikuchi	KUD-003	1444

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EXAMINER

KOAGEL, JONATHAN BRYAN

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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02/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,631	Applicant(s) KIKUCHI ET AL.	
	Examiner JONATHAN KOAGEL	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “connective portion” in claims 1, 5 and 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 5 and 6 are objected to because of the following informalities:

- The recitation “to mix first cooled air introduced by said first cooled air” (claim 5, lines 15-16; claim 6, lines 16-17) should be changed to --to mix first cooled air introduced by said first cooled air introducing pipe-- for clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott US Patent No. 2,118,949.

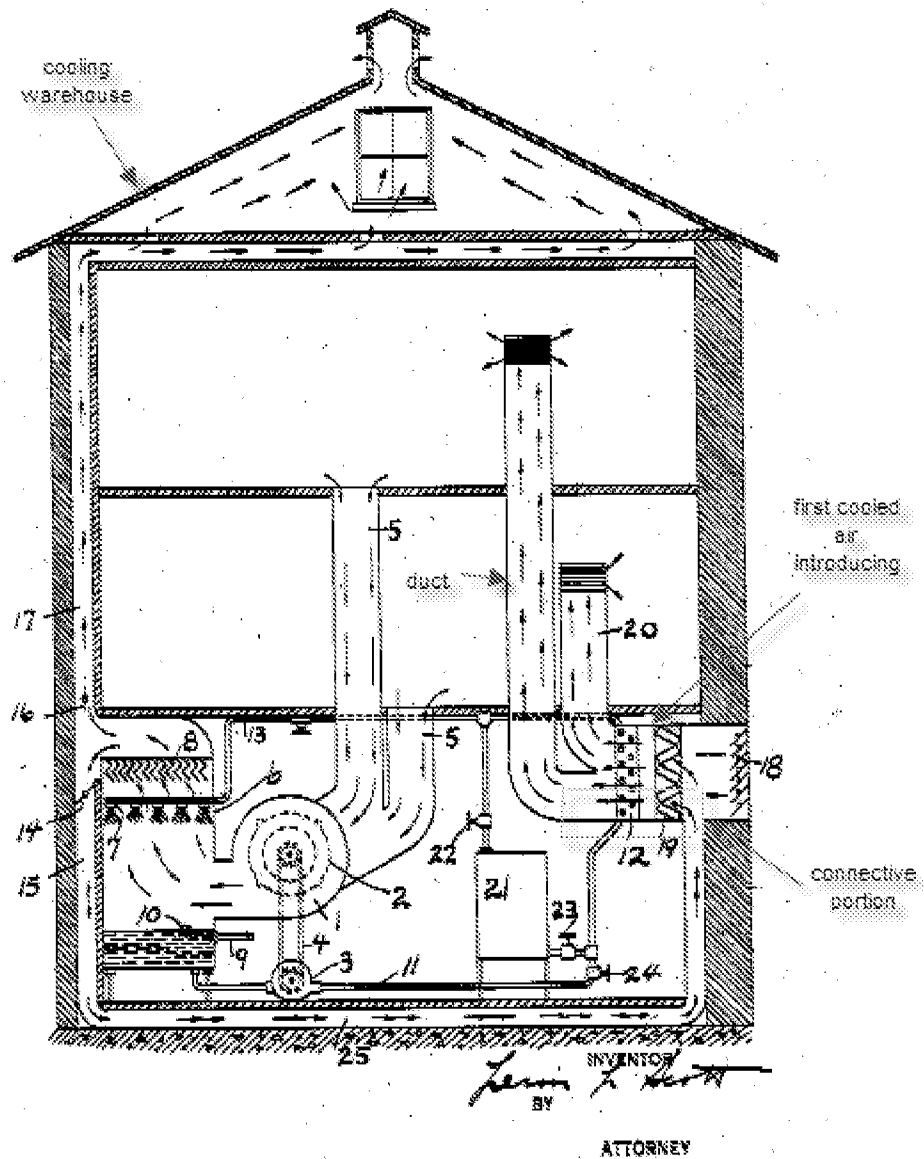
Regarding claim 1, Scott teaches in fig. 1, a cooling warehouse (See annotated figure below) comprising, a first cooled air introducing pipe (See annotated figure below) introducing a first cooled air cooled by an air refrigerant type cooling apparatus 12, a second cooled air introducing pipe 25 taking in second cooled air in said cooling warehouse, wherein said second cooled air introducing pipe 25 is set inside of said cooling warehouse, a duct (See annotated figure) in the cooling warehouse, a connective portion (See annotated figure) inside the cooling warehouse connecting the

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first cooled air introducing pipe to the duct in the cooling warehouse at a downstream side of the connective portion with the second cooled air introducing pipe 25, wherein the connective portion (see annotated figure) is capable of mixing said first cooled air and said second cooled air.

Regarding claim 7, Scott teaches the invention as disclosed above and further teaches in fig. 1, a cooled air feeding fan 1 disposed in the warehouse (see annotated figure) and capable of supplying the second cooled air to be mixed with the first cooled air at the connective portion (see annotated figure).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda JP Publication No. 2003-02116 and Willis US Patent No. 3,792,595.

Regarding claim 5, Okuda teaches in figs. 3 and 4, an air refrigerant type cooling system comprising, an air refrigerant type cooling apparatus 20, a cooling warehouse 12 wherein said air refrigerant type cooling apparatus 20 includes a compressor 22 compressing a refrigerant air coming out of said cooling warehouse 12, a heat exchanger 23 cooling said refrigerant air coming out of said compressor 22, an expansion turbine 25 expanding said refrigerant air coming out of said heat exchanger 23 and supplying said refrigerant air to said cooling warehouse 12, a first cooled air introducing pipe (pipe leading into 12) introducing said refrigerant air coming out of said expansion turbine 25. Okuda fails to explicitly teach a second cooled air introducing pipe disposed within said cooling warehouse and configured to take in air from said cooling warehouse, a connective portion disposed in the cooling warehouse and configured to mix first cooled air introduced by said first cooled air introducing pipe with air from said second cooled air introducing pipe.

However, Willis teaches in fig. 1, a vehicle body 6 (which can broadly be interpreted as a cooling warehouse) with a first cooled air introducing pipe 32

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introducing air from an evaporator 30, a second cooled air introducing pipe 38 disposed within said cooling warehouse 6 and capable of taking air from said cooling warehouse 6, and a connective portion 60 disposed in the cooling warehouse 6 and capable of mixing the first cooled air introduced by said first cooled air introducing pipe with air from said second cooled air introducing pipe 38.

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Okuda with the teachings of Willis to include a second cooled air introducing pipe and a connective portion configured to mix the first cooled air with air from the second cooled air pipe in order to prevent an extreme temperature gradient from occurring within the cooling warehouse. With the second cooling air mixing with the first cooling air, a more uniform temperature distribution will occur within the warehouse, preventing some items being stored from freezing while others not being cooled enough.

Regarding claim 6, Okuda teaches in figs. 3 and 4, an air refrigerant type cooling apparatus 20, a cooling warehouse 12 and a carriage 14 mounting said air refrigerant type cooling apparatus 20 and said cooling warehouse 12, wherein said air refrigerant type cooling apparatus 20 includes a compressor 22 compressing an refrigerant air coming out of said cooling warehouse 12, a heat exchanger 23 cooling said refrigerant air coming out of said compressor 22, and an expansion turbine 25 expanding said refrigerant air coming out of said heat exchanger 23 and supplying said refrigerant air to said cooling warehouse 12 and said cooling warehouse 12 includes a first cooled air

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introducing pipe (pipe leading into 12) introducing said refrigerant air coming out of said expansion turbine 25. Okuda fails to explicitly teach a second cooled air introducing pipe disposed entirely within said cooling warehouse and configured to take in air from said cooling warehouse, a connective portion disposed in the cooling warehouse and configured to mix first cooled air introduced by said first cooled air introducing pipe with air from said second cooled air introducing pipe.

However, Willis teaches in fig. 1, a cooling warehouse 6 with a first cooled air introducing pipe 32 introducing air from an evaporator 30, a second cooled air introducing pipe 38 disposed entirely within said cooling warehouse 6 and capable of taking air from said cooling warehouse 6, and a connective portion 60 disposed in the cooling warehouse 6 and capable of mixing the first cooled air introduced by said first cooled air introducing pipe with air from said second cooled air introducing pipe 38.

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Okuda with the teachings of Willis to include a second cooled air introducing pipe and a connective portion configured to mix the first cooled air with air from the second cooled air pipe in order to prevent an extreme temperature gradient from occurring within the cooling warehouse. With the second cooling air mixing with the first cooling air, a more uniform temperature distribution will occur within the warehouse, preventing some items being stored from freezing while others not being cooled enough.

Response to Arguments

Applicant's arguments with respect to claim 1 has been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN KOAGEL whose telephone number is (571)270-7396. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571)272-4834 or Frantz Jules (571)272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. K./
Examiner, Art Unit 3744
29 January 2010

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art
Unit 3744